



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,486	04/30/2001	Joshua Bers	00-4064	2345

32127 7590 05/19/2005

VERIZON CORPORATE SERVICES GROUP INC.
C/O CHRISTIAN R. ANDERSEN
600 HIDDEN RIDGE DRIVE
MAILCODE HQEO3H14
IRVING, TX 75038

EXAMINER

AGDEPPA, HECTOR A

ART UNIT PAPER NUMBER

2642

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/845,486	Applicant(s) BERS ET AL.	
	Examiner Hector A. Agdeppa	Art Unit 2642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1, 3, 6 – 10, 28 – 30, 34, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,812,638 (Muller) in view of US 6,263,066 (Shtivelman et al.)

As to claims 1, 3, 6 – 10, 30, and 34, Muller teaches a system and method wherein an incoming call is received at a call center/directory assistance facility and the caller is prompted with a prompting device 24 to provide audio input relating to the purpose for the call. The audio input is recorded by recording device 22 and the recording is provided to an operator/agent for servicing once the recording has been

Art Unit: 2642

heard by the operator/agent. If no operator/agent is immediately available, the incoming call is put into a queue, and the audio input is stored. Once an operator/agent becomes available, the audio input is provided and the incoming call connected. (Fig. 2, Abstract, Col. 1, lines 49 – 59, Col. 4, line 11 – Col. 5, line 27)

Also, call processing system 10 includes a queuing system 28 which may be included in a switch. (Col. 5, lines 20 – 27) Moreover, any system that can receive an incoming call has a switching device of some sort that actually receives the call. There is no other way to receive a telephony call. The same is true if the claim is read as a caller being at a switching device.

Further note that the prompting device 24 and recording device 22 may be incorporated into an automated directory assistance system (ADAS) comprising a voice response device. Moreover, Muller teaches that a switch may be used to connect an operator/agent to the incoming call in the queue. Therefore, because, as seen in Fig. 2, recording device 22 and prompter 24 are elements separate from the queuing system 28, it is inherent that the incoming call is moved/transferred among those elements.

It is also inherent that some call identifier is associated with the call. Because the recording may be stored, the only way to relay both the queued incoming call and the recording to the operator/agent together, at the right time, is to use some identifier to associate the call and the recording.

Finally, Muller teaches that after the communication of incoming call information to the operator, the operator and caller may be connected so that the call may be completed with human-to-human interface. (Col. 8, lines 37 - 44) Therefore, it is clear,

Art Unit: 2642

that after a call is routed to a voice response device, the call may be transferred back to the switch.

What Muller does not teach assigning a unique call identifier to the incoming call.

However, Muller teaches that well known and already used queuing means may be implemented. Well known queuing methods in the ACD/call center arts include priority queuing/queuing according to agents' skills, etc. as taught by Shtivelman et al. (Col. 9, line 34 - Col. 10, line 37, Col. 10, line 57 - Col. 11, line 19 of Shtivelman et al.)

Such well known queuing means queue calls not only in a first-in-first-out basis.

Therefore, assigning a unique identifier to the call or using a unique identifier already present in the call such as the ANI or caller ID is inherent. There is no way to queue calls according to priority and skill set among various agents unless this is done.

It would have been obvious for one of ordinary skill in the art at the time the invention was made because, as discussed, such queuing means are old and well known and qualify as standard queuing means, which are at least contemplated by Muller.

Moreover, ACD/call center calls routinely monitor calls for agent performance, store calls for statistical purposes, etc. For many years now, a caller, before being connected to an agent, will hear an announcement indicating that the call may be recorded for various these purposes. If no call identifier were assigned to these calls there would be no way to later retrieve these calls.

As to claim 13, Muller teaches queuing calls with a queuer 28 and routing calls to agents. (Col. 5, lines 9 – 27 of Muller) Shtivelman et al. teaches the same. (Col. 6,

Art Unit: 2642

lines 8 – 21, 30 – 42, Col. 7, line 38 – Col. 8, line 12, Col. 9, lines 18 – 33 of Shtivelman et al.)

As to claims 14 – 17, see the rejection of claim 1 and also note that it is inherent that some server or some element having server functionality to act as the call processor/router. Even if that element is just the switch discussed above, the switch reads on the claimed generic server with call routing functionality. Muller also teaches that the information requested from a caller is not only the reason for the call such as a directory assistance query, i.e., a telephone number, but also can glean, for example, a language preference and a certain department requested. (Col. 4, lines 35 – 47 of Muller) See also Col. 8, lines 2 – 3 of Shtivelman et al. wherein it is taught that “any” relevant information associated with a caller / call record is retrieved. Finally, Muller teaches that the operator/agent receives the audio input at a device 26 which can perform speech recognition, has a display device 44, among other features. (Col. 5, lines 28 – 67 of Muller) Clearly, without some means for playing the recorded information, an agent would not be able to hear the recorded information. Moreover, a data device is needed since stored audio is data.

As to claims 28 and 29, see the rejection of claim 1 above and note that any ACD operates by forwarding calls to an agent. As described above, Muller teaches accepting an incoming call to an ACD, not a particular agent. Of course, there are times when a caller is provided a direct dial number to reach a particular agent, but the standard mode of operation in any ACD is that a caller calls using for example, an 800 number as anyone who has called a call center or directory assistance knows. After being

Art Unit: 2642

connected to the ACD, the call must be forwarded to an actual agent. In other words, no agent directly answers the call and so connection to an actual agent requires forwarding the call to the agent when one becomes available. See also Col. 5, lines 9 – 14 of Muller wherein Muller teaches “forwarding” the caller information OR communicating it to the operator.

As to claim 35, Muller teaches that the system 10 will alter/manipulate the timing of the audio input recording to match the time it takes the operator/agent to listen/process the recorded information with the time it takes to play a generic/pre-recorded message to the caller so that the caller experiences no dead time in optimal conditions. (Abstract, Col. 5, line 45 – Col. 8, line 36 of Muller) Effectively, the need for an acknowledgement in the system of Muller is erased or interpreted differently, the acknowledgement is integrated into the above-discussed timing feature.

However, the above teachings of Muller are merely a choice to present a user-friendly interface to a caller and such is merely a design choice or preference. It would have been at the least, obvious, to one of ordinary skill in the art at the time the invention was made to have required some acknowledgement that the audio input was heard. The motivation is clear in that there would be no purpose to connecting the caller to the operator/agent before they had heard the recorded audio input, or the very purpose of the invention would be defeated.

Remember, that as discussed above, Muller teaches that after communication of incoming caller information to the operator, the operator and incoming caller may actually be connected to effect human-to-human communications. Again, unless the

Art Unit: 2642

operator has heard the incoming caller's audio input/recorded message there is no point to connecting them. It would completely defeat the purpose of Muller.

2. Claims 18 – 27, and 31 - 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,812,638 (Muller), in view of US 6,263,066 (Shtivelman et al.), and further in view of US 5,991,390 (Booton).

As to claims 18 - 20, 23, 31, and 32, see the above rejection of claim 1.

Muller and Shtivelman et al. have been discussed above, but what they do not teach is a call center that uses conferencing to connect calls to available operators/agents.

However, many methods of connecting a caller to an operator/agent are known and commonly used methods are that of conferencing. A call center/directory assistance system are also well known as being implemented in a plurality of different environments because the act of connecting a caller to an agent can be thought of as a conference or as being received by the call center. Such a system is taught by Booton. (Col. 10, lines 12 – 26 of Booton)

It would have been obvious for one of ordinary skill in the art at the time the invention was made to have implemented the call processing system of Muller using conferencing because it is, as discussed, a well known and commonly used method. Moreover, the Muller reference itself, recognizes this and teaches that any number of conventional means may be used to connect the caller to the operator/agent. (Col. 8, lines 42 – 43 of Muller) Such was not discussed in Muller because transferring,

Art Unit: 2642

sending, conferencing/initiating a separate call, forwarding (as discussed above) are all well known, and all are viable options/methods.

Note that in conferencing, of course to connect the operator/agent to the caller after hearing the recorded audio input is to "bridge" the call.

As to claims 21, 24, and 33, see the rejection of claim 35.

As to claims 22 and 25, as per standard conference calls, the initial connection, which in this case, would be the call at the prompting device 24 and recorder 22, is dropped once the call is bridged between conference participants, i.e., the caller and operator/agent. There is no need for the connection any longer and is a waste of resources besides being the standard method of operation in conference calling.

As to claims 26 and 27, Muller teaches that the incoming call is from the PSTN is inherent or at the least obvious. Muller does not specify that the invention is only to be used in a closed environment such as a PBX. In fact, Muller teaches that any caller can call in and request directory assistance for any city or location which means the callers are at least in some part of the leg, calling from the PSTN. (See the above noted portions of Muller) For this same reason, the voice response device would have to send the call over the PSTN. See also, Col. 10, lines 12 – 26 of Booton and note that when an outgoing call is made to a remote agent, again, that call must be made over the PSTN and if any information is collected from the caller using the voice response device of Muller or the interactive voice response (IVR) taught by Booton, as taught by Muller, that information too must be sent over the PSTN to whatever switching device services the remote agent.

See the rejection of claims 18, 19, 23, and 31 and note that as discussed, any of a plurality of well known methods of call connection are contemplated by Muller and especially in the case of call conferencing, it is inherent that the PSTN is used inasmuch as conferencing systems do not merely operate in a closed environment. The purpose of conferencing is to connect parties from disparate networks, locations, etc. The only common network allowing for this connectivity is of course, the PSTN. See also Fig. 1 of Shtivelman et al.

Another motivation for using the PSTN is if remote operators/agents were to be employed. Providing a dedicated connection from the call center/directory assistance center to a remote operator/agent is very costly and many systems merely use the PSTN.

Response to Arguments

3. Applicant's arguments with respect to claims 1 - 35 have been considered but are moot in view of the new ground(s) of rejection.

Applicant has misquoted Muller et al. by arguing that Muller et al. merely teaches prompting an incoming caller to provide information that is "temporarily recorded and stored. (Col. 4, lines 35 – 61.)" However, Muller actually teaches that the information is "**at least** temporarily recorded and stored," indicating that applicant assertion that Muller et al. does not teach nor have reason to assign a unique identifier to a call or recorded information is incorrect. Any storage beyond temporary storage means that in order to access such information at a later time, it must be uniquely identified.

As to applicant's argument regarding Shtivelman et al., applicant has asserted that the reason Muller cannot teach or suggest assigning a unique identifier is because the system is only a FIFO queuing system. However, although examiner has pointed out that Shtivelman et al. teaches a system beyond FIFO queuing, i.e., bumping queued positions, applicant states that this is also not a sufficient teaching or suggestion of assigning unique identifiers. (Col. 9, lines 35 – 42 of Shtivelman et al.) Applicant cannot argue both ways. Furthermore, if bumping can occur and queues do not have to follow a FIFO progression, there is no way for recorded information to be transferred or associated with a call without some associating identifier, because as seen in Fig. 1 of Shtivelman et al., the IVR/CTI 22, 25 is a separate element from queuing processor 23 or switch 21 and if a record or information is to be retrieved out of line and remain associated with a call or call representation in a queue, they must somehow be associated.

Additionally, Shtivelman et al. teaches that the IVR/CTI 22, 25 records any information from a caller as a voice mail message and if the caller wishes to disconnect, the "record" of the voice mail message is used as a virtual call queue position keeper. This again, reinforces examiner's contention that Shtivelman et al. inherently or at the least obviously requires the assigning of a unique identifier to an incoming call. Either the virtual call or voice mail message record or other identifying means has to be present in order for a call that has been disconnected to be represented in a queue. Because the call has been disconnected, a recording can no longer simply move with the queued call. Moreover, the IVR/CTI 22 is a separate system element and when a

Art Unit: 2642

record of a voice mail reaches the head of a queue, any stored information is "retrieved." (Col. 5, line 58 – Col. 6, line 12 of Shtivelman et al.)

As to applicant's argument that Muller and Shtivelman et al. lack motivation to combine, examiner gave a specific example of call monitoring and recording. Also, both Muller and Shtivelman et al. teach ACD systems wherein recorded information is used to assist an agent in properly processing an incoming call. Shtivelman et al. as already noted teaches allowing both live and virtual calls to be queued. In one sense, Muller could merely be this situation wherein Shtivelman et al. adds the functionality of allowing virtual call queuing. Moreover, like Shtivelman et al., Muller also teaches using separate elements for the recording and replaying of information (elements 22 and 42) and the queuing system 28 (Fig. 2 of Muller).

Also, whether or not recorded information is stored away / separately from a call or not is merely a design choice or preference. It is notoriously old and well known in the computer arts as well as the telephony arts to use pointers or tags or some type of referencing identifier to associate stored information. This is necessary any time a any information is stored in a separate database or memory.

Finally, while Shtivelman et al. was used to show ACD systems using the above-discussed queuing and the assigning of unique identifiers, there may be other motivations or reasons present in the known art or the references that make Muller and Shtivelman et al. combinable.

As to applicant's arguments regarding claims 21, 24, 33, and 35, Muller teaches that the duration during which an operator or agent listens is known and the playback of

Art Unit: 2642

certain messages and/or recordings, as well as when the operator or agent and caller are connected is dependent upon this duration. More specifically, the agent or operator and caller are only connected after the operator or agent has heard the caller's recorded information. (Col. 8, lines 37 – 43 of Muller) Therefore, the end of the duration is a de facto acknowledgement that the operator or agent has heard the recorded information. The claims do not specify what type of acknowledgment is given nor how, nor by whom.

As to applicant's arguments regarding the switching device, see the discussion above regarding the IVR/CTI 22, 25 or Shtivelman et al. and also see again Fig. 1 of Shtivelman et al., elements 21 and 17 which are switches separate from IVR/CTI 22, 25. And therefore, in order to "retrieve" stored information as discussed above, the bi-directional communication argued as lacking in Muller is clearly present in Shtivelman et al. Also note that like Shtivelman et al., Muller also teaches using separate elements for the recording and replaying of information (elements 22 and 42) and the queuing system 28 (Fig. 2 of Muller).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 4,694,483 (Cheung) teaches that as of 1986, it was known in the telephony arts to monitor agents and incoming calls. US 5,062,103 (Davidson et al.) and US 5,239,460 (LaRoche) teach monitoring agents for performance and statistical purposes. US 5,181,236 (LaVallee et al.) teaches that as of 1990 it was known to

Art Unit: 2642

monitor agents and incoming calls as well as allow callers to leave recorded messages so that agents could call-back those callers. US 5,185,782 (Srinivasan) teaches that as of 1991, it was known to prompt incoming callers for and store information regarding where and when they would desire a callback if no agents were readily available to handle their calls.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hector A. Agdeppa whose telephone number is 571-272-7480. The examiner can normally be reached on Mon thru Fri 9:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on 571-272-7488. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hector A. Agdeppa
Examiner
Art Unit 2642

H.A.A.
May 9, 2005

HECTOR A. AGDEPPA
PATENT EXAMINER

A handwritten signature in black ink, appearing to be 'H.A. Agdeppa', written over a circular stamp that contains the text 'HECTOR A. AGDEPPA' and 'PATENT EXAMINER'.